From: Donald Williams R6 DWH Info@epa.gov Subject:

Date: 05/08/2010 09:36 AM

Draft Dispersed Plume Monitoring Plan.doc Attachments:

ATT9SG8G.doc DraftSamplingOverview.-PD-OCmnts5310.doc draft Dispersed Plume Monitoring Plan\_ERT Comments.doc Deepwater Horizon R6Air\_5.2.10.doc

Thanks,

Don Williams **Deputy Associate Director** Superfund Remedial Branch EPA Region 6 (214) 665-2197

----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Richard Mayer/R6/USEPA/US

Donald

Williams/R6/USEPA/US@EPA,

Rub= en

Casso/R6/USEPA/US@EPA, To:

Mark

Sather/R6/USEPA/US@EPA, Maria Martinez/R6/USEPA=

/US@EPA

05/03/2010 11:06 AM

Subject: Fw: air plan

/font>

Can you complete your review by 3 pm=?

Rich Mayer, P.G. Sr. Project Engineer US EPÁ Federal Facilities Section (6PD-F) 214-665-7442 Fax - 214-665-7263 ---- Forwarded by R= ichard Mayer/R6/USEPA/US on 05/03/2010 10:59 AM ----air plan<= /table> Byrum, to: Richard 05/03/2010 Mayer 10:58 AM Alex

Alex J. Byrum Project Scientist Weston Solutions, Inc. 14160 Dallas Parkway, Suite 850 Dallas, Texas 75254 (469) 374-7760 work (214) 868-3966 cell

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permis= sion of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.

----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Richard

Mayer/R6/USEPA/US

To: Donald

Williams/R6/USEPA/US@EPA
Date: 05/03/2010 11:09 AM
Subject: Re: QASP comments

#### Thanks.

Rich Mayer, P.G. Sr. Project Engineer US EPA Federal Facilities Section (6PD-F) 214-665-7442 Fax - 214-665-7263

Re: QASP comments Link

Donald Williams to: Richard 05/03/2010 <= /b> Richard 05/03/2010 Mayer 11:01 AM

After 4:00 pm. I have meetings from 1:00 until 4:00

Thanks,

Don Williams Deputy Associate Director Superfund Remedial Branch EPA Region 6 (214) 665-2197

From: Richard

Mayer/R6/USEPA/US

To: Donald

Williams/R6/USEPA/US@EPA

Date: 05/03/2010 10:44 AM Subject: QASP comments

Will you be available for a meeting on the plans this afternoon.

Rich Mayer, P.G. Sr. Project Engineer US EPA Federal Facilities Section (6PD-F) 214-665-7442 Fax - 214-665-7263

#### From: Chris Petersen/R6/USEPA/US

Claudia Hubbard/R6/USEPA/US@EPA, Peg= gy Foster/R6/USEPA/US@EPA, Sam Coleman/R6/USEPA/US@EPA, Mary Kemp/R6/USEPA/US@= EPA, Pam Phillips/R6/USEPA/US@EPA, Rita Ware/R6/USEPA/US@EPA, Terry Burton/R6/US= EPA/US@EPA, Walt Helmick/R6/USEPA/US@EPA, Ronnie Crossland/R6/USEPA/US@EPA, Chris Peter= sen/R6/USEPA/US@EPA, Mark Hansen/R6/USEPA/US@EPA, Timber Carter/R6/USEPA/US@EPA, Nelson Smith/R6= /USEPA/US@EPA, Bob Goodfellow/R6/USEPA/US@EPA, Bryant Smalley/R6/USEPA/US@EPA, Misty Ward/= R6/USEPA/US@EPA, Elizabeth Rogers/R6/USEPA/US@EPA, Samuel Tates/R6/USEPA/US@EPA, Craig Carro= II/R6/USEPA/US@EPA, James Staves/R6/USEPA/US@EPA, Jhana Enders/R6/USEPA/US@EPA, John Martin/R6/= USEPA/US@EPA, Karen McCormick/R6/USEPA/US@EPA, Mike McAteer/R6/USEPA/US@EPA, Nancy Jones/= R6/USEPA/US@EPA, Nicolas Brescia/R6/USEPA/US@EPA, Steve Mason/R6/USEPA/US@EPA, William Rhote= nberry/R6/USEPA/US@EPA, Chris Perry/R6/USEPA/US@EPA, Christopher Ruhl/R6/USEPA/US@EPA, Donaldp Smith/R6/USEPA/US@EPA, Karen McCormick/R6/USEPA/US@EPA, Paige Delgado/R6/US EPA/US@EPA, Roberto Bernier/R6/USEPA/US@EPA, Adam Adams/R6/USEPA/US@EPA, Althea Foster/= R6/USEPA/US@EPA, Brandi Todd/R6/USEPA/US@EPA, Charles Fisher/R6/USEPA/US@EPA, Eric Delgado/R= 6/USEPA/US@EPA, Gary Moore/R6/USEPA/US@EPA, Greg Fife/R6/USEPA/US@EPA, Jon Rinehart/R6/USEP= A/US@EPA, Mark Hayes/R6/USEPA/US@EPA, Rita Engblom/R6/USEPA/US@EPA, Susan Webster/R6/= USEPA/US@EPA, Warren Zehner/R6/USEPA/US@EPA, Carlos Sanchez/R6/USEPA/US@EPA, Charles Faultry/R6/USEPA/US@EPA, Donald Williams/R6/USEPA/US@EPA, John Meyer/R6/USE= PA/US@EPA, Mary Simmons/R6/USEPA/US@EPA, Stephanie Delgado/R6/USEPA/US@EPA, Ursula Lennox/R6/USEPA/US@EPA, Vincent Malott/R6/USEPA/US@EPA, Camille Hueni/R6/US= EPA/US@EPA, Charles Fisher/R6/USEPA/US@EPA Chris Villarreal/R6/USEPA/US@EPA, David Abshire/R6/USEPA/US@EPA, Gary Baumgarten/R6/USEPA/US@EPA, Garyg Miller/R6/U= SEPA/US@EPA, Philip Allen/R6/USEPA/US@EPA, Rafael Casanova/R6/USEPA/US@EPA, Raji Josiam/= R6/USEPA/US@EPA, Robert Sullivan/R6/USEPA/US@EPA, Ruben Moya/R6/USEPA/US@EPA, Shawn Ghose/R6= /USEPA/US@EPA, Stephen Tzhone/R6/USEPA/US@EPA, Bart Canellas/R6/USEPA/US@EPA, Bret Kendric= k/R6/USEPA/US@EPA, Buddy Parr/R6/USEPA/US@EPA, Katrina Coltrain/R6/USEPA/US@EPA, Laura Stankos= ky/R6/USEPA/US@EPA, Mark Purcell/R6/USEPA/US@EPA, Michael Hebert/R6/USEPA/US@EPA, Michael Torre= s/R6/USEPA/US@EPA, Petra Sanchez/R6/USEPA/US@EPA, Rosemary McGinn/R6/USEPA/US@EPA, Sairam Appaji/R6/USEPA/US@EPA, Valmichael Leos/R6/USEPA/US@EPA, Deborah Greenwell/= R6/USEPA/US@EPA, Sing Chia/R6/USEPA/US@EPA, Wren Stenger/R6/USEPA/US@EPA, Chuck Talton/R6/US= EPA/US@EPA, Courtney Kudla/R6/USEPA/US@EPA, Cynthia Brown/R6/USEPA/US@EPA, Doretha Christian/R6/USEPA/US@EPA, Jamie Bradsher/R6/USEPA/US@EPA, Kelvin Spencer/R= 6/USEPA/US@EPA, Kevin Shade/R6/USEPA/US@EPA, Lance Nixon/R6/USEPA/US@EPA, Lawrence Andrews/= R6/USEPA/US@EPA, Linda Brewer/R6/USEPA/US@EPA, Lydia Johnson/R6/USEPA/US@EPA, Patrice Miller= /R6/USEPA/US@EPA, Robert Werner/R6/USEPA/US@EPA, Stephen Capuyan/R6/USEPA/US@EPA, Terrell Burrell/R6/USEPA/US@EPA, Anna Milburn/R6/USEPA/US@EPA, Brenda Cook/R6/USEPA / US@EPA, Bret Kendrick/R6/USEPA/US@EPA, Dipanjana Bhattacharya/R6/USEPA/US@EPA, Ghassan Khoury/R6/USEPA/US@EPA, John Meyer/R6/USEPA/US@EPA, Jon Rauscher/R6= /USEPA/US@EPA, Kenneth Shewmake/R6/USEPA/US@EPA, LaDonna Turner/R6/USEPA/US@EPA, Philip Ofosu/R6/USEPA/US@EPA, Philip Turner/R6/USEPA/US@EPA, Susan Roddy/R6/USEPA/= US@EPA, Ana Esquivel/R6/USEPA/US@EPA, Betty Williamson/R6/USEPA/US@EPA, Connie Suttice/R6/USEPA/US@EPA, Evelyn Clemmons/R6/USEPA/US@EPA, Monica Forbes/R6/= USEPA/US@EPA, Amber Perry/R6/USEPA/US@EPA, Bijan Taheri/R6/USEPA/US@EPA, Camisha Scott/R6= /USEPA/US@EPA, Casey Luckett/R6/USEPA/US@EPA, David Reel/R6/USEPA/US@EPA, Diana Byrd/R6/US= EPA/US@EPA, Hart Rockwell/R6/USEPA/US@EPA, Karen Peycke/R6/USEPA/US@EPA, Lisa Ruhl/R6/U= SEPA/US@EPA, Monica Smith/R6/USEPA/US@EPA, Samuel Reynolds/R6/USEPA/US@EPA, Tony Roberso= n/R6/USEPA/US@EPA, Carlene Chambers/R6/USEPA/US@EPA, Helen Newman/R6/USEPA/US@EPA, Henry Thomp= son/R6/USEPA/US@EPA, Jo Gee/R6/USEPA/US@EPA, Karen Hartis/R6/USEPA/US@EPA, Kathleen Robinson/R6/= USEPA/US@EPA, Kathly Gibson/R6/USEPA/US@EPA, LaMonica Collins/R6/USEPA/US@EPA, Lavern Pratt/R6/USEPA/US@EPA, Linda Carter/R6/USEPA/US@EPA, Rena McClurg/R6/USEPA/= US@EPA, Robert Wynne/R6/USEPA/US@EPA, Vena Webb/R6/USEPA/US@EPA, Will LaBombard/R6/= USEPA/US@EPA, Alice Hollier/R6/USEPA/US@EPA, Charlene Sloan/R6/USEPA/US@EPA, David Parris= h/R6/USEPA/US@EPA,

Derek Ragon/R6/USEPA/US@EPA, Diana Ortiz/R6/USEPA/US@EPA, Dwayne Patrick/R6= /USEPA/US@EPA, Ida Gilleland/R6/USEPA/US@EPA, Nancy Yarberry/R6/USEPA/US@EPA, Phil Lawrenc= e/R6/USEPA/US@EPA, Beverly Negri/R6/USEPA/US@EPA, Bill Little/R6/USEPA/US@EPA, David Gold/R6/U= SEPA/US@EPA, Donn Walters/R6/USEPA/US@EPA, Janetta Coats/R6/USEPA/US@EPA, Jason McKinney= /R6/USEPA/US@EPA, LaNell Birdwell/R6/USEPA/US@EPA, Phyllis Hoey/R6/USEPA/US@EPA, Stephen Harper/R6/USEPA/US@EPA, Zana

Halliday/R6/USEPA/US@EPA 05/03/2010 11:19 AM Date: Vendor/Citizen Inquiries

To:

FYI - See weblink below

J. Chris Petersen **Deputy Associate Director** Prevention and Response Branch (6SF-P) U.S. EPA Region 6 214.665.3167 office 214.665.7447 fax

Chris--Per our phone conversation th= is morning, this is in response to Myron's request Thursday for our help in responding to the influx of inquiries you're receiving in R6 from technology vendors. As noted below, we've set up a link on the Agency= 's new BP Spill website that opens to a "Submission Form" . We're asking that the public, including vendors, developers, etc, who are e-mailing or calling into the Region offering technology solutions for the cleanup efforts, complete and submit the form on-line. Our goal is to get the basic information we need to evaluate these technologies in an orderly and expeditious manner. Please circulate this across the Divisions and advise them to feel free to disseminate it to your state and local agencies (a few folks told me that some of the environmental organizations in Louisiana are also looking for EPA's help with these inqui= ries that are coming into them). I hope this is helpful. Please let me know if you have any questions. Good luck with the cleanup effort! Regards, Minnie.

Minerva Rojo Acting Senior Environmental Technology Officer Office of the Science Advisor U.S. Environmental Protection Agency 1300 Pennsylvania Ave., NW (8105R) Washington, DC 20460

phone: (202) 564-7356 fax: (202) 564-2070

e-mail: rojo.minerva@epa.gov

#### http://www.epa.gov/bpspill/techsolution.html

It's linked on the right side of the BP Spill home page, under "What you can do"

----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: R6 Advisory

To:

05/03/2010 Date:

11:35 AM \*\*\* FLASH MESSAGE \*\*\*; Document Pres=

Subject: ervation/Litigation Hold:Gulf Oil Spill Deepwater Horizon Fa

1. U.S. EPA Region 6 Employees: Please be advised that the U.S. Department of Justice has issued a memorandum calling on EPA and other Federal agencies to preserve information related to the Gulf Oil Spill that followed the fire and explosion at the Deepwater Horizon facility operation by BP Explor= ation & Production, Inc. EPA Headquarters will be providing specific instructions to all employees later this week regarding preserving informat= ion. In the meantime, DOJ has directed that "all Contact: Edwin Quinones, 6RC-S, 214.665.8035-----Read More =3D=3D> Link

```
----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----
```

From: Terry Burton/R6/USEPA/US

Donald

Williams/R6/USEPA/US@EPA,

Jon

Mark

Rauscher/R6/USEPA/US@EPA, To:

James

Staves/R6/USEPA/US@EPA, Karen McCormick/R6/=

USEPA/US@EPA

Cc:

Hansen/R6/USEPA/US@EPA

Date: 05/03/2010 11:56 AM Subject: Fw: First Cut Summary

See below regarding potential extrap= olation of tox data to deep-sea environments...

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139

----- Forwarded by T= erry Burton/R6/USEPA/US on 05/03/2010 11:52 AM -----

Re: Fw: First Cut Su= mmary Link

**Rick** 

Greene to: Gregory 05/03/2010 <= to: Wilson 11:49 AM

/font>

Albert
Venosa,
Cynthia =
SonichMullin,
Daniel
Heggem,
Cc: Mace
Barron,
Michael
Murrell,
Richard
Devereux,
Terry

Burton=

I have a couple staff looking into i= t.

\*\*\*\*\*\*\*

Dr. Richard M. Greene
Acting Director, Gulf Ecology Division
National Health and Environmental Effects Research Laboratory
US EPA, Office of Research and Development
1 Sabine Island Dr., Gulf Breeze, FL 32561-5299
TEL: 850-934-2497
FAX: 850-934-2401

From: Gregory Wilson/DC/USEPA/US
To: Rick Greene/GB/USEPA/US@EPA

Albert Venosa/CI/USEPA/US@EPA, Cynth= ia Sonich-Mullin/DC/USEPA/US@EPA, Daniel

Cc: Heggem/LV/USEPA/US@EPA, Mace Barron/G= B/USEPA/US@EPA, Michael Murrell@EPA, Richard

Devereux@EPA, Terry Burton/R6/USEPA/US@EPA

Date: 05/03/2010 07:44 AM

Re: Fw: First Cut Summary

#### Thanks Rick -

Is there any way to extrapolate &nbs= p;known tox data to the deeps sea environment to make some educated guesses? I know it is a stretch. We should also think about what the alternative consequences both in the deep sea and towards/including the shore line if we would not inject dispersant a the source zone.

Gregory Wilson, Ph.D.
U.S. Environmental Protection Agency
Office of Emergency Management (OEM)
Regulation and Policy Development Division
1200 Pennsylvania Ave., NW (5104A)
Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

From: Rick Greene/GB/USEPA/US

To: Gregory Wilson/DC/USEPA/US@EPA

Albert Venosa/CI/USEPA/US@EPA, Mace Barron/GB/USEPA/US@EPA, Terry

Cc: Burton/R6/USEPA/US@EPA, Richard Devereux@EPA, Daniel Heggem/LV/USEPA/US@EPA,

Michael Murrell@EPA, Cynthia Sonich-Mullin/D= C/USEPA/US@ĔPA

Date: 05/02/2010 01:55 PM

Re: Fw: First Cut Summary

Here are some edits to the document. One of my staff is trying to find the depth of the deep ocean pycnocline - I'll get back to you on this. I think the issue of exposure and effects on deep ocean fauna will be difficult to assess quantitatively. By in large, we can't bring these things into the lab to do tox tests. I suppose one could video some of the habitate (deep corals reefs etc.)

habitats (deep corals reefs, etc).
[attachment "Dispersing Oil in Deepwater Ecosystems=5FGreene edits.doc" deleted by Gregory Wilson/DC/= USEPA/US]

\*\*\*\*\*\*\*\*\*\*\*

Dr. Richard M. Greene

Acting Director, Gulf Ecology Division

National Health and Environmental Effects Research Laboratory

US EPA, Office of Research and Development 1 Sabine Island Dr., Gulf Breeze, FL 32561-5299

TEL: 850-934-2497 FAX: 850-934-2401

From: Gregory

Wilson/DC/USEPA/US

Albert

Venosa/CI/USEPA/US@EPA,

Rick

Greene/GB/USEPA/US@EPA,

Mace

Barron/GB/USEPA/US@EPA, Terry Burton/R6/USEPA/=

US@EPA

Date: 05/02/2010 12:14 PM Subject: Fw: First Cut Summary

# All -

To:

Can everybody provide comments as ap= propriate to me ASAP, and I will compile them and send them back to NOAA on EPA's behalf? The ecological exposure to subsurface sea life to dispersed oil is a top priority that we need to understand. Of high conce= rn is how are we going to measure the exposure and what criteria are going to be used to evaluate the net environmental benefit. Thought? = Please respond ASAP.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division 1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

----- Forwarded by G= regory Wilson/DC/USEPA/US on 05/02/2010 11:19 AM -----

"alan.mearns" < Alan.Mea= From:

rns@noaa.gov>

"Kate.Clark" < Kate.Clar=

k@noaa.gov>,

James.Kendall@mms.gov, Gregory.Boland@mms.gov, Pasquale.Roscigno@mms.gov, James.Sinclair@mms.gov, Margaret.Metcalf@mms.gov Gregory Wilson/DC/USEPA/U=

S@ĔPA, Albert

Venosa/CI/USEPA/US@EPA, Rick To:

Greene/GB/USEPA/US@EPA, Mace Barron/GB/= USEPA/US@EPA, Terry Burton/R6/USEPA/US@EPA, Daniel.Leedy@mms.gov, John Tarpley < john.t=

arpley@noaa.gov>, Charlie

Henry

<Charlie.Henry@noaa.gov>

Nicolle R Rutherford <Nicolle.R.R= utherford@noaa.gov>, Steve

Lehmann

<Steve.Lehmann@noaa.gov>, Bonnie Ponwith < Bonnie.Pon=

with@noaa.gov>, Karen

Kohanowich<sup>3</sup>

<Karen.Kohanowich@noaa.gov>, Doug Helton < Doug.He= Iton@noaa.gov>, William Conner <William.Conner@noaa.gov>

05/01/2010 10:12 PM Subject: Re: First Cut Summary

#### A11

Cc:

Nicolle Rutherford and I took a first crack at a draft statement for your review and comment. It is for review and comment only, not distribution.

We are also sending this for comment to Bonnie Ponwith and Karen Kohanowich who have provided a lot of excellent resource information from NOAA Fisheries and OAR and have significant responsibilities for the deep fauna.

Keep in  $\min$  we are in the mode of developing 2-pagers for wide consumption.

You will also note I took the liberty, at the end, of suggesting a net environmental benefit, based on our discussion of the alternative and ongoing situation.

We need some questions answered or qualified: - The natural seep oil discharge in the Gulf is 10 million gallons per=5F= =5F=5F=5F=5F? -Jr-Jr-Jr-Jr-Jr-Jr-Is there a map of seeps? Can major and minor seeps in the area be identified? At what depth (or is it seasonal?) do the "two seas" meet. I assume his is the permanent pycnocline, but what depth range do you experts consider?

We will need to keep this moving.

John Tarpley, thanks for chairing the call and keeping us moving. And thanks for the list Kate.  $\,$ 

Thanks so much!

Alan Mearns and Nicolle Rutherford

```
Alan J. Mearns, PhD
Senior Staff Scientist
Emergency Response Division
Office of Response and Restoration
National Oceanic and Atmospheric Administration
7600 Sand Point Way NE
Seattle, WA 98115
Office: (206) 526-6336
Cell: (206) 719-7442
Email: alan.mearns@noaa.gov
Please see our website at: <a href="http://response.restoration.noaa.gov/=">http://response.restoration.noaa.gov/=</a>
The contents of this message are mine personally and do not necessarily reflect any position of {\tt NOAA}.
"I want the crab count, and I want it {\tt NOW!} " {\tt Capt.} {\tt Sig} {\tt Larsen}, {\tt Northwestern}, {\tt Dangerous} {\tt Catch}.
Kate.Clark wrote:
> AKA, the SSDIPECW,
> Thanks to everyone for an engaging and productive call today. The > emails of everyone who participated are included in this email. Since > the emails all contain full names and agency affiliations, I will skip > listing them in the text.
> Attached, for background only, is a Subsurface Injection of Surface > Oil Dispersant test plan.
> Please feel free to cc: the workgroup with any additional information > that may be pertinant.
> Thank you,
> Kate Clark
> (c) 301-785-7802
[attachment "Dispersing Oil in Deepwater Ecosystems.doc" deleted by Rick {\tt Greene/GB/USEPA/US]}
---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM ----
 From: Terry Burton/R6/USEPA/US
             Albert
 To:
             Venosa/CI/USEPA/US@EPA
             Carroll/R6/USEPA/US@EPA,
             Donald
             Williams/R6/USEPA/US@EPA,
             Gregory
             Wilson/DC/USEPA/US@EPA,
             Harry Allen/ERT/R=
 Cc:
             2/USEPA/US@EPA, James
             Staves/R6/USEPA/US@EPA,
             Jon
             Rauscher/R6/USEPA/US@EPA,
             Karen McCormick=
             /R6/USEPA/US@EPA, Richard
             Mayer/R6/USEPA/US@EPA
             05/03/2010 12:26 PM
 Date:
             Known on-board capabilities
 Subject: for Moni= toring Plan
             Response
```

Hi folks,

Thermosalinograph
Conductivity/Temperature/Depth instr= ument (CTD)
fluorometer
Acoustic Doppler Current Profiler (m= easures current across a control volume in the water column)
Side scan sonar
Video imaging capability
Scientific Computer System

Anything outside that will need to be explicitly stated. I will be in touch.

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139

---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Harry Allen/ERT/R2/USEPA/US
To: Terry Burton/R6/USEPA/US@EPA

Gregory Wilson/DC/USEPA/US@EPA, Albe= rt Venosa/CI/USEPA/US@EPA, Craig Carroll/R6/USEPA/US@EPA, Donald Williams/R6/U= SEPA/US@EPA, James Staves/R6/USEPA/US@EPA, Jon Rauscher/R6/USEPA/US@EPA, Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA

Date: 05/03/2010 01:00 PM

Cc:

Re: We have an OK to respond to BP's Plan, versus writing a new document. No

further message.

I added comments to the draft plan.<= /font>

Oops. I forgot to agree with Nick: &= nbsp; NO SINKING.

# Harry

Harry L. Allen, Ph.D. US EPA/ERT MS-101, Bldg. 18 2890 Woodbridge Ave. Edison, NJ 08837

Phone 732 321-6747 Fax 732 321-6724 Cell 609 865-4422

----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Nick Nichols/DC/USEPA/US

To: Harry Allen/ERT/R2/USEPA/US@EPA

Albert Venosa/CI/USEPA/US@EPA, Craig Carroll/R6/USEPA/US@EPA,

Donald Williams/R6/USEPA/US@EPA, Gregory Wilson/DC= Cc: /USEPA/US@EPA, James Staves/R6/USEPA/US@EPA, Jon

/USEPA/US@EPA, James Staves/R6/USEPĀ/ŪS@EPA, Jon Rauscher/R6/USEPA/US@EPA, Karen McCormick= /R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA, Terry Burton/R6/USEPA/US@EPA

Date: 05/03/2010 01:09 PM

Re: We have an OK to respond to BP's Plan, versus writing a new

document. No further message.

Any word on getting samples of the o= il from the surface slicks at the site?

Thought is we could begin a program (Gulf Breeze/LSU?) to use the

swirling/baffled flasks on most other dispers= ants on the Schedule. First use a "bucket test" to see if any are effective in breaking the emulsion, warranting further efficacy testing= .

 $\ensuremath{\mathsf{BP}}$  apparently is open to using other products on the Schedule (said they were running out but retraced that statement) but don't know their status ?<= /font>

William "Nick" Nichols &nb= sp; OEM Regulatory and Policy Development Division Washington D.C. 20460 202-564-1970

Harry Allen/ERT/R2/USEPA/US From: Terry Burton/R6/USEPA/US@EPA To:

Gregory Wilson/DC/USEPA/US@EPA, Albe= rt

Venosa/CI/USEPA/US@EPA, Craig Carroll/R6/USEPA/US@EPA,

Donald Williams/R6/U= SEPA/US@EPA, James Cc:

Staves/R6/USEPA/US@EPA, Jon Rauscher/R6/USEPA/US@EPA,

Karen McCormick= /R6/USEPA/US@EPA, Richard

Mayer/R6/USEPA/US@EPA 05/03/2010 02:00 PM Date:

Re: We have an OK to respond to BP's Plan, versus writing a

new document. No further message.

I added comments to the draft plan.<= /font>

Oops. I forgot to agree with Nick: &= nbsp; NO SINKING.

[attachment "draft Dispersed Pl= ume Monitoring Plan=5FERT Comments.doc" deleted by Nick Nichols/DC/USEPA/U= S]

Harry

Harry L. Allen, Ph.D. US ÉPA/ERT MS-101, Bldg. 18 2890 Woodbridge Ave. Edison, NJ 08837

Phone 732 321-6747 732 321-6724 609 865-4422

---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Gregory Wilson/DC/USEPA/US

Terry

To: Burton/R6/USEPA/US@EPA

Albert

Venosa/CI/USEPA/US@EPA,

Craig

Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Harry Allen/ERT/R=

Cc: 2/UŠEPA/US@EPA, James

Staves/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA

Date: 05/03/2010 01:37 PM

Re: Known on-board Subject: capabilities for Monitoring

Plan Response

Does BP plan to due an ecosystem imp= act analysis? if so what is their plan?

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division 1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

Terry Burton/R6/USEPA/US From:

Albert To:

Venosa/CI/USEPA/US@EPA

Craig

Carroll/R6/USEPA/US@EPA, Donald Williams/R6/USEPA/US@EPA, Gregory Wilson/DC/USEPA/US@EPA,

Harry Allen/ERT/R= Cc: 2/USEPA/US@EPA, James

Staves/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA

05/03/2010 01:26 PM Date:

Known on-board capabilities

Subject: for Moni= toring Plan

Response

It now seems clear: here are the capabilities for the potential data collectio= n:

Thermosalinograph

Conductivity/Temperature/Depth instr= ument (CTD)

fluorometer

Acoustic Doppler Current Profiler (m= easures current across a

control volume in the water column)

Side scan sonar

Video imaging capability Scientific Computer System

Anything outside that will need to be explicitly stated. I will be in touch.

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139

Maria Martinez/R6/USEPA/US From:

Richard To:

Mayer/R6/USEPA/US@EPA

Donald

Williams/R6/USEPA/US@EPA,

Mark

Sather/R6/USEPA/US@EPA,

Cc: Ruben

Casso/R6/USEPA/US@EPA, Jim Afghani/R6/USEPA/U=

S@EPĂ, Bill

Nally/R6/USEPA/US@EPA

05/03/2010 01:46 PM Date: Subject: Re: Fw: air plan

Rich,

The attached are our comments on the plan.

Maria

Richard Mayer/R6/USEPA/US From:

Donald

Williams/R6/USEPA/US@EPA, Rub= en Casso/R6/USEPA/US@EPA,

To:

Mark

Sather/R6/USEPA/US@EPA, Maria Martinez/R6/USEPA=

/US@EPA

05/03/2010 11:06 AM

Subject: Fw: air plan

Can you complete your review by 3 pm=?

Rich Mayer, P.G. Sr. Project Engineer

US EPÁ

Federal Facilities Section (6PD-F)

214-665-7442

Fax - 214-665-7263

----- Forwarded by R= ichard Mayer/R6/USEPA/US on 05/03/2010 10:59 AM -----

air plan<= /table>

Byrum,

Alex

to: Richard 05/03/2010 Mayer 10:58 AM

/font>

Alex J. Byrum **Project Scientist** Weston Solutions, Inc. 14160 Dallas Parkway, Suite 850 Dallas, Texas 75254

(469) 374-7760 work (214) 868-3966 cell

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permis= sion of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you. [attachment "Deepwater Horizon=5FR6= Air=5F5.2.10.doc" deleted by Maria Martinez/R6/USEPA/US]

---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM ----

From: Richard Mayer/R6/USEPA/US

Laura

Hunt/R6/USEPA/US@EPA, Jon

Raus=

cher/R6/USEPA/US@EPA,

Donald

To: Williams/R6/USEPA/US@EPA,

Nancy

Jones/R6/USEPA/US@EPA,

Matt Hubner/R= 6/USEPA/US@EPA.

kettlerk@westonsolutions.com

05/03/2010 01:54 PM Date:

Discuss comments on the Subject: QASP for wat= er and

sediment

How about a meeting at 2:15 to discu= ss comments on the QASP for water and sediment. Sorry for the short notice. Please meet in 8th floor in REOC. Matt, the 1st door code is 415 and the 2nd door code is 2350.

Rich Mayer, P.G. Sr. Project Engineer US EPÁ Federal Facilities Section (6PD-F) 214-665-7442 Fax - 214-665-7263

---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

Richard

From: Mayer/R6/USEPA/US

Donald To:

Williams/R6/USEPA/US@EPA

Date: 05/03/2010 02:06 PM

Re: Discuss comments on

Subject: the QASP for water and

sediment

Ok. I've got your comments pri= nted out in case you can not make it.

Rich Mayer, P.G. Sr. Project Engineer US EPĀ Federal Facilities Section (6PD-F) 214-665-7442

Re: Discuss comments = on the QASP for Richard 05/03/2010 water and to: Mayer 02:04 PM sedimentDonald Williams <= /b> Jon Rauscher, kettlerk,= Laura Cc: Hunt, Matt Hubner, Nancy Jones

I'll get there as soon as my confere= nce call (that just started) ends.

Thanks,

Don Williams Deputy Associate Director Superfund Remedial Branch EPA Region 6 (214) 665-2197

From: Richard Mayer/R6/USEPA/US

Laura

Hunt/R6/USEPA/US@EPA, Jon

Raus=

cher/R6/USEPA/US@EPA,

Donald

To: Williams/R6/USEPA/US@EPA,

Nancy

Jones/R6/USEPA/US@EPA,

Matt Hubner/R= 6/USEPA/US@EPA,

kettlerk@westonsolutions.com

Date: 05/03/2010 01:54 PM

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Subject: QASP for wat= er and

sediment

How about a meeting at 2:15 to discu= ss comments on the QASP for water and sediment. Sorry for the short notice. Please meet in 8th floor in REOC. Matt, the 1st door code is 415 and the 2nd door code is 2350.

Rich Mayer, P.G. Sr. Project Engineer US EPA Federal Facilities Section (6PD-F) 214-665-7442 ----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Terry Burton/R6/USEPA/US

. Albert

To: Venosa/CI/USEPA/US@EPA

Craig

Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Gregory

Wilson/DC/USEPA/US@EPA,

Harry Allen/ERT/R=

Cc: 2/UŚEPA/US@EPA, James Staves/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA, Mark

Hansen/R6/USEPA/US@EPA

Date: 05/03/2010 02:21 PM

Info dump as of now Subject: regarding respon= se to "BP

monitoring plan"

Hello all,

Here is what we have regarding the BP monitoring Plan.

1) A fluorometer to delineate horizo= ntal and vertical extents of the subsurface plume.

The assumption is that the fluoromet= er will be towed in an array below the ocean surface. I would like to have clarification as to whether the fluorometer will be used, and if it is, how it will be implemented (towed behind, towed via aircraft, etc.). I would prefer the fluorometer for plume delineation to using water sample for that purpose; it should provide much richer data. Harry says that the Gulf Strike team has one if needed. Perhaps a bubble turbidimeter can also be towed, to get bubble size?

2) Water column sampling collection capabilities via a rosette sampler.

Harry Allen has proposed a testing r= egime to determine dispersion effectiveness such as % oil, % water, % dispersant. To prove the model and predict buoyancy we would also need bubble size, density (or specific gravity) along the thermal gradient of the water colum= n, and other Stoke's law factors like kinematic viscosity. Harry a= nd Al are also proposing fluorometric and/or spectrophometric profiles of the dispersed oil, to be used later during operations and also in phase 2. As I understand, Al Venosa is arranging with Environment Canada to take 3 ml aliquots from each sample for this purpose. Certainly; BP should provide the sample.

Finally, although It may not be poss= ible, I would like to ask for more sampling bottles per run. 4 samples is not enough to make statistical analyses.

3) Conductivity, temperature, and de= pth measuring equipment

Needed to determine water column str= atification and to associate with the samples.

4) Dissolved oxygen and turbidity se= nsors

DO sensors are needed (and critical) for determining potential negative impacts to undersea environment. H= arry is concerned that biodegradation of the submerged oil may create a problem with oxygen depletion. He reminds me that at 3 mg oxygen per mg of oil plus an additional demand from the dispersant, surface reaeration could be unable to keep up with the BOD. Obviously, we do not want to create an anoxic cloud on the bottom of the Gulf, even moreso since there is alrea= dy an anoxic zone in the Gulf.

Turbidity sensors can also be used to determine dispersant efficacy.

### 5) Current-profiling equipment

The ACDP units can determine current in the Gulf. Perhaps it can also be used to determine if the dispersa= nt changes the flow once applied (i.e., slows or redirects the oil flow once entrained). That would affect any future modeling.

#### Additional issues:

- a) Don Williams has highlighted the clear lack of Data Quality Objectives. There is no indication of what they are looking for in the samples, what numbers or qualitative infor= mation is expected, or if there are any "triggers" for future action or stand-down. For instance, we are waiting for sampling data from the previous test; there is no indication what is being sampled from that test except total petroleum hydrocarbons (TPHs). Obviously we will need much more than TPH data in the future.
- b) Harry feels that for Phase 2, EPA will need a more thorough oil analysis to determine whether the dispersed plume is toxic to aquatic life. There is questions about whether the plume will be more toxic than the undispersed oil. And we need to know whether it will hang in the water column, to come in contact with the benthos as it approaches land . (Phase 1 may tell us this.)
- land . (Phase 1 may tell us this.)
  c) Nick Nichols would like to see so= me surface efficacy and effects at the surface.
- d) Greg has mentioned that there sho= uld be an ecosystem impact analysis.

## Anything else???

That's it for now.

Terry Burton
Senior Environmental Scientist
Superfund and Technology Liaison Program
U.S. Environmental Protection Agency
Burton.Terry@epa.gov
(214) 665-7139

#### Hi folks,

It now seems clear: here are the capabilities for the potential data collectio= n:

# Thermosalinograph

Conductivity/Temperature/Depth instr= ument (CTD) fluorometer

Acoustic Doppler Current Profiler (m= easures current across a control volume in the water column)
Side scan sonar

Video imaging capability Scientific Computer System

Anything outside that will need to be explicitly stated. I will be in touch.

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov

#### (214) 665-7139

---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM ----

From: Gregory Wilson/DC/USEPA/US

Terry To:

Burton/R6/USEPA/US@EPA

Albert

Venosa/CI/USEPA/US@EPA, Craig Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA, Harry Allen/ERT/R=

Cc: 2/USEPA/US@EPA, James

Staves/R6/USEPA/US@EPA,

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA

05/03/2010 02:22 PM Date:

Re: Known on-board

Subject: capabilities for Monitoring

Plan Response

Hi Terry - can you confirm this is the BP plan you sent us this morning? After talking to Katie Clark at NOAA ("Kate.Clark" <Kate.Clark@noaa.gov>,) this looks like if it is BP's plan they are using NOAA assests.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division 1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

From: Terry Burton/R6/USEPA/US

Albert To:

Venosa/CI/USEPA/US@EPA

Craig

Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Gregory

Wilson/DC/USEPA/US@EPA,

Harry Allen/ERT/R= 2/USEPA/US@EPA, James Cc:

Staves/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA

05/03/2010 01:26 PM Date:

Known on-board capabilities

Subject: for Moni= toring Plan

Response

Hi folks,

It now seems clear: here are the capabilities for the potential data collectio= n:

Thermosalinograph Conductivity/Temperature/Depth instr= ument (CTD) fluorometer Acoustic Doppler Current Profiler (m= easures current across a control volume in the water column) Side scan sonar Video imaging capability Scientific Computer System

Anything outside that will need to be explicitly stated. I will be in touch.

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139

#### ---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM ----

From: Gregory Wilson/DC/USEPA/US

Terry To:

Burton/R6/USEPA/US@EPA

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Craig

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Donald

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Harry Allen/ERT/R=

2/USEPA/US@EPA, James Cc: Staves/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Mark Hansen/R6/USEPA/US@EPA,

Richard

Mayer/R6/USEPA/US@EPA

Date: 05/03/2010 02:29 PM

Re: Info dump as of now

Subject: regarding re= sponse to "BP

monitoring plan"

Thanks Terry. We are compiling Harry's comments into ours and will send them to you so that we can gets some answers from BP. Does that sound like a plan? Call me if you need to 202 564 1425.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division 1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

Terry Burton/R6/USEPA/US From:

Albert

To: Venosa/CI/USEPA/US@EPA

Craig Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Gregory

Wilson/DC/USEPA/US@EPA,
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Staves/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA,

Mark

Hansen/R6/USEPA/US@EPA

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# Anything else???

That's it for now.

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139

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# ----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Terry Burton/R6/USEPA/US

To: Gregory

Wilson/DC/USEPA/US@EPA

Albert

Venosa/CI/USEPA/US@EPA,

Craig

Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Cc: Harry Allen/ERT/R= 2/USEPA/US@EPA, James Staves/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA, Karen McCormick= /R6/USEPA/US@EPA, Richard

Mayer/R6/USEPA/US@EPA

Date: 05/03/2010 02:33 PM

Re: Known on-board Subject: capabilities for Monitoring

Plan Response

The BP plan this morning specifically mentioned Thermosalinograph, Conductivity/Temperature/Depth instrument (CTD), potentially a fluorometer, Acoustic Doppler Current Profiler ADCP, and Scientific Computer System. They have already used the side scan sonar and video imaging capability for the sampling test, and commented on the need for that equipment. I made an assumption that they were going to use Coast Guard assets since they matched up with the research vessel's capabilities. Perhaps that is not the case. At this point, that assumption is all I can go with if I am going to meet the deadl= ine, unless I hear more soon. Let me know if you hear differently; thanks!=

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139

Re: Known on-board c= apabilities for Monitoring Plan Response Link

Gregory to: Terry 05/03/2010 Wilson to: Burton 02:22 PM

Albert
Venosa,
Craig Ca=
rroll,
Donald
Williams,
Harry
Cc: Allen,
James
Staves, Jon
Rauscher,
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McCormick,
Richard
Mayer

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Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division 1200 Pennsylvania Ave., NW (5104A)

Washington, DC 20460 tel: (202) 564-7989 fax: (202) 564-2625

From: Terry Burton/R6/USEPA/US

Albert

To: Venosa/CI/USEPA/US@EPA

Craig

Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Gregory Wilson/DC/USEPA/US@EPA,

Harry Allen/ERT/R= Cc:

2/USEPA/US@EPA, James

Staves/R6/USEPA/US@EPA,

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Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA

Date: 05/03/2010 01:26 PM

Known on-board capabilities

Subject: for Moni= toring Plan

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---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM ---

From: Terry Burton/R6/USEPA/US

Donald

Williams/R6/USEPA/US@EPA, To:

Jon

Rauscher/R6/USEPA/US@EPA

**James** 

Staves/R6/USEPA/US@EPA,
Craig
Carroll/R6/USEPA/US@EPA,
Mark
Hansen/R6/USEPA/US@EPA
Date: 05/03/2010 03:18 PM

Date: 05/03/2010 03:18 PM Subject: Fw: First Cut Summary

Initial tox estimates; what do you t= hink? Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139 Forwarded by T= erry Burton/R6/USEPA/US on 05/03/2010 03:16 PM -----Re: Fw: First Cut Su= mmary **Link Rick** Greene to: Gregory 05/03/2010 <= Wilson 03:15 PM /font> Albert Venosa, Cynthia = Sonich-Mullin, Daniel Heggem, Mace Cc: Barron, Michael Murrell, Richard Devereux, Terry Burton, Michael Lewis

Here is some input from Mace and Mike Lewis (GED) -

The basis of ecotox and environmental regulation is that standard test species we do have data for are reasonable surrogates for other species. While there are huge uncertainties, and the absence of test data, I think at best they could use a 10X (species to species) or 100x (species + acute to chronic) safety factor to extrapolate in the absence of information.

The Corexit 9500 LC50 for common estuarine species is a follows:

Mysids:  $LC50 = 3D \ 20.9 \ mg/l$  (96h test) and 13.4 mg/l (7 d test). The chronic first effect levels on growth and fecundity

were 4.2 and 15.5 mg/l, respectively.

Silversides: LC50 = 3D 79.3 mg/l (96h= test) and 75.7 (7 d test). The first chronic effect levels were >100 mg/l.

Thus, mysids (a shrimp-like crustace= an) were more sensitive and silversides (small fish).

If we apply a 10x safety factor to t= he mysid tox data, it comes out to about 1-2 mg/l (acute) and 0.4-1.6 (chronic=).

\*\*\*\*\*\*\*

Dr. Richard M. Greene
Acting Director, Gulf Ecology Division
National Health and Environmental Effects Research
Laboratory

US EPA, Öffice of Research and Development 1 Sabine Island Dr., Gulf Breeze, FL 32561-5299

TEL: 850-934-2497 FAX: 850-934-2401

From: Gregory Wilson/DC/USEPA/US
To: Rick Greene/GB/USEPA/US@EPA

Albert Venosa/CI/USEPA/US@EPA, Cynth= ia Sonich-Mullin/DC/USEPA/US@EPA, Daniel Cc: Heggem/LV/USEPA/US@EPA, Mace Barron/G= B/USEPA/US@EPA, Michael Murrell@EPA, Richard

B/USEPA/US@EPA, Michael Murrell@EPA, Richard Devereux@EPA, Terry Burton/R6/USEPA/US@EPA

Date: 05/03/2010 07:44 AM

Re: Fw: First Cut Summary

#### Thanks Rick -

Is there any way to extrapolate &nbs= p;known tox data to the deeps sea environment to make some educated guesses? I know it is a stretch. We should also think about what the alternative consequences both in the deep sea and towards/including the shore line if we would not inject dispersant a the source zone.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division 1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

From: Rick Greene/GB/USEPA/US

To: Gregory Wilson/DC/USEPA/US@EPA

Albert Venosa/CI/USEPA/US@EPA, Mace Barron/GB/USEPA/US@EPA, Terry Burton/R6/USEPA/US@EPA, Richard

Cc: Devereux@EPA, Daniel

Heggem/LV/USEPA/US@EPA, Michael Murrell@EPA, Cynthia Sonich-Mullin/D=

C/USEPA/US@EPA

Date: 05/02/2010 01:55 PM

Re: Fw: First Cut Summary

Here are some edits to the document. One of my staff is trying to find the depth of the deep ocean pycnocline - I'll get back

to you on this. I think the issue of exposure and effects on deep ocean fauna will be difficult to assess quantitatively. By in large, we can't bring these things into the lab to do tox tests. I suppose one could video some of the habitats (deep corals reefs, etc). [attachment "Dispersing Oil in Deepwater Ecosystems=5FGreene edits.doc" deleted by Gregory Wilson/DC/= USEPA/US]

Dr. Richard M. Greene Acting Director, Gulf Ecology Division National Health and Environmental Effects Research Laboratory US EPA, Office of Research and Development 1 Sabine Island Dr., Gulf Breeze, FL 32561-5299

TEL: 850-934-2497 FAX: 850-934-2401

Gregory From:

Wilson/DC/USEPA/US

Albert

Venosa/CI/USEPA/US@EPA,

Rick

Greene/GB/USEPA/US@EPA, To:

Mace

Barron/GB/USEPA/US@EPA, Terry Burton/R6/USEPA/=

US@EPA

Date: 05/02/2010 12:14 PM Subject: Fw: First Cut Summary

### All -

From:

Can everybody provide comments as ap= propriate to me ASAP, and I will compile them and send them back to NOAA on EPA's behalf? The ecological exposure to subsurface sea life to dispersed oil is a top priority that we need to understand. Of high conce= rn is how are we going to measure the exposure and what criteria are going to be used to evaluate the net environmental benefit. Thought? = Please respond ASAP.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division 1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460 tel: (202) 564-7989 fax: (202) 564-2625 ----- Forwarded by G= regory Wilson/DC/USEPA/US on 05/02/2010 11:19 AM ---

"alan.mearns" < Alan.Mea= rns@noaa.gov> "Kate.Clark" < Kate.Clar= k@noaa.gov>, James.Kendall@mms.gov, Gregory.Boland@mms.gov, Pasquale.Roscigno@mms.gov,

Subject:

James.Sinclair@mms.gov, Margaret.Metcalf@mms.gov, Gregory Wilson/DC/USEPA/U= S@EPA, Albert

S@EPA, Albert
Venosa/CI/USEPA/US@EPA, Rick
Greene/GB/USEPA/US@EPA,
Mace Barron/GB/=
USEPA/US@EPA, Terry
Burton/R6/USEPA/US@EPA,
Daniel.Leedy@mms.gov, John
Tarpley < john.t =
arpley@noaa.gov >, Charlie
Henry
< Charlie.Henry@noaa.gov >
Nicolle R Rutherford
< Nicolle.R.R =
utherford@noaa.gov >, Steve
Lehmann

Date: 05/01/2010 10:12 PM Subject: Re: First Cut Summary

#### A11

Nicolle Rutherford and I took a first crack at a draft statement for your review and comment. It is for review and comment only, not distribution.

We are also sending this for comment to Bonnie Ponwith and Karen Kohanowich who have provided a lot of excellent resource information from NOAA Fisheries and OAR and have significant responsibilities for the deep fauna.

Keep in mind we are in the mode of developing 2-pagers for wide consumption.  $\ \ \,$ 

You will also note I took the liberty, at the end, of suggesting a net environmental benefit, based on our discussion of the alternative and ongoing situation.

We need some questions answered or qualified:

- The natural seep oil discharge in the Gulf is 10 million gallons per=5F=5F=5F=5F=5F=7

-Is there a map of seeps? Can major and minor seeps in the area be identified?

- At what depth (or is it seasonal?) do the "two seas" meet. I assume this is the permanent pycnocline, but what depth range do you experts consider?

We will need to keep this moving.

John Tarpley, thanks for chairing the call and keeping us moving. And thanks for the list Kate.

Thanks so much!

Alan Mearns and Nicolle Rutherford

Alan J. Mearns, PhD Senior Staff Scientist Emergency Response Division Office of Response and Restoration National Oceanic and Atmospheric Administration 7600 Sand Point Way NE Seattle, WA 98115

Subject:

Office: (206) 526-6336 Cell: (206) 719-7442 Email: alan.mearns@noaa.gov

Please see our website at: http://response.restoration.noaa.gov/=

The contents of this message are mine personally and do not necessarily reflect any position of NOAA.

"I want the crab count, and I want it NOW!" Capt. Sig Larsen, Northwestern, Dangerous Catch.

```
Kate.Clark wrote:
> AKA, the SSDIPECW,
>
> Thanks to everyone for an engaging and productive call today. The enails of everyone who participated are included in this email. Since > the emails all contain full names and agency affiliations, I will skip > listing them in the text.
>
> Attached, for background only, is a Subsurface Injection of Surface > Oil Dispersant test plan.
>
> Please feel free to cc: the workgroup with any additional information > that may be pertinant.
> Thank you,
> Kate Clark
> (c) 301-785-7802
> >
```

[attachment "Dispersing Oil in Deepwater Ecosystems.doc" deleted by Rick Greene/GB/USEPA/US]

----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Terry Burton/R6/USEPA/US
Albert

To: Venosa/CI/USEPA/US@EPA

Craig

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Donald

Williams/R6/USEPA/US@EPA,

Gregory

Wilson/DC/USEPA/US@EPA,

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/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA,

Mark

Hansen/R6/USEPA/US@EPA

Date: 05/03/2010 04:02 PM

Latest Info dump regarding

Subject: response to "BP monitoring"

plan"

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Subject:

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# Subject:

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c) Nick Nichols would like to see some su= rface efficacy and effects at the surface. d) Greg has mentioned that there should be an ecosystem impact analysis.

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton.Terry@epa.gov (214) 665-7139

---- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Gregory Wilson/DC/USEPA/US

To:

Burton/R6/USEPA/US@EPA

Albert

Venosa/CI/USEPA/US@EPA,

Craig

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Donald

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Harry Allen/ERT/R=

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Jon

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Karen McCormick=

/R6/USEPA/US@EPA, Mark

Hansen/R6/USEPA/US@EPA,

Richard

Mayer/R6/USEPA/US@EPA

Date: 05/03/2010 04:04 PM

Re: Latest Info dump

Subject: regarding respo= nse to "BP

monitoring plan"

It is being reviewed now. we w= ill send it shortly.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM)

Regulation and Policy Development

Division 1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

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Williams/R6/USEPA/US@EPA,

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James Staves/R6/=

USEPA/US@EPA, Jon

Cc: Rauscher/R6/USEPA/US@EPA,

Karen

McCormick/R6/USEPA/US@EPA,

Mark Hansen/=

R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA,

Terry

Burton/R6/USEPA/US@EPA

05/03/2010 05:03 PM

Re: Latest Info dump regarding

Subject: respo= nse to "BP monitoring

plan"

Great and thanks for your help.

Craig Carroll Chief, Emergency Readiness Section EPA Region 6

Ph: 214-665-2220 Fax: 214-665-9718

From: Gregory Wilson/DC/USEPA/US

To:

Burton/R6/USEPA/US@EPA

Albert

Venosa/CI/USEPA/US@EPA, Craig Carroll/R6/USEPA/US@EPA,

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09:36 AM ----

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Cc: Jon

Rauscher/R6/USEPA/US@EPA, Karen McCormick=

/R6/USEPA/US@EPA, Mark Hansen/R6/USEPA/US@EPA,

Richard

Mayer/R6/USEPA/US@EPA,

Dana Tulis/DC/U= SEPA/US@EPA

Date: 05/03/2010 05:10 PM

Re: Monitoring Plan for

Subject: Subsea Injec= tion of Surface

Oil dispersant

Our comments. Can you please v= erify this is the BP monitoring plan, and not the unified Area Command plan? We are hearing there is a BP monitoring plan out there.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division

1200 Pennsylvania Ave., NW (5104A) Washington, DC 20460

tel: (202) 564-7989 fax: (202) 564-2625

Terry Burton/R6/USEPA/US From:

Albert

Venosa/CI/USEPA/US@EPA, Craig Carroll/R6/USEPA/US@EPA, Donald Williams/R6/USEPA/US@EPA, Gregory Wilson/DC= /USEPA/US@EPA, Harry

Allen/ERT/R2/USEPA/US@EPA, To:

James

Staves/R6/USEPA/US@EPA, Karen McCorm= ick/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA,

Jon Rauscher/R6/USEPA/US@EPA

Mark

Cc: Hansen/R6/USEPA/US@EPA

Date: 05/03/2010 10:54 AM

Monitoring Plan for Subsea

Subject: Injection of Surface Oil

dispersant

New BP Monitoring Plan. Again, I will propose to Craig that we respond to this Plan, as opposed to his original request to draft a separate document. I will be in touch.

Terry Burton Senior Environmental Scientist Superfund and Technology Liaison Program U.S. Environmental Protection Agency Burton. Terry@epa.gov (214) 665-7139 ---- Forwarded by T= erry Burton/R6/USEPA/US on 05/03/2010 09:49 AM -----

Fw: New Deadline -0= 900 -**EPA** Request for Ecosystem Monitoring Plan for Subsea Injection of Surface Oil dispersan

Craig to: John 05/03/2010 Carroll to: Martin 09:20 AM

Paige Delgado, Richard Mayer, Cc: Terry Burton, Susan Webster, **James** 

Staves

## FYI

```
Craig Carroll Chief, Emergency Readiness Section
EPA Region 6
Ph: 214-665-2220
Fax: 214-665-9718
----- Forwarded by C= raig
Carroll/R6/USEPA/US on 05/03/2010 09:19
AM -----
          "Kate.Clark" <Kate.Clar=
From:
         k@noaa.gov>
         Craig
Carroll/R6/USEPA/US@EPA
To:
          "DeWitt, Cynthia S" <de=
          wittcs@bp.com>,
         Steve.Lehmann@noaa.gov,
          anthony.parkin@alyeska-
         pipeline.com,
          g.coelho@ecosy= stem-
          management.net, James
         Staves/R6/USEPA/US@EPA,
          Charlie Henry
          <Charlie.Henry@noaa.gov>,
Cc:
          james.e.hanzalik@uscg.mil,
          william.w.goetzee@uscg.mil,
         pasquale.roscigno@mm=
s.gov, William Conner
          <William.Conner@noaa.gov>,
          Ed Levine < Ed.Levine@noa=
         a.gov>, Rob Ricker
<Rob.Ricker@noaa.gov>,
         "Michele A. Finn" < Mic=
          hele.A.Finn@noaa.gov>
         05/03/2010 09:03 AM
Date:
          Re: New Deadline - 0900 -
          EPA Request for Ecosystem
Subject: Monitoring Plan for Subsea
          Injection of Surface Oil
         dispersan=
```

```
for monitoring ecosystem effects > of sub-sea dispersant application in the event this test indicates > sub-surface application is a viable option. I would like to have the > plan by 0900 hrs tomorrow CDT in order to facilitate timely review by > all appropriate EPA parties. Jim Staves is in Robert, LA and will be > the EPA on-site lead to coordinate with you on this matter. Plea= se > call him tomorrow morning at 214-789-3417. Thanks >
> Craig Carroll
> Chief, Emergency Readiness Section
> EPA Region 6
> Ph: 214-665-2220
> Fax: 214-665-9718
                                                              "DeWitt.
> From: "DeWitt,
Cynthia S" <dewittcs@bp.com>
> To: Craig
Carroll/R6/USEPA/US@EPA
> Date: 05/02/2010
12:12 PM
> Subject: Sampling
Plan for Subsea Injection of Surface
Oil
 Oil dispersant: Test 2 >
>
>-----=
 > > Mr. Carroll,
 > > As requested.
> <<Sample Plan for Subsea dispersant
Test 2 .doc>>
Test 2 .doc>>
> Kindest Regards, */
> Cynthia S. DeWitt/*
> HSSE Manager
> US Cogeneration BU
> BP Products North America
> 700 Louisiana
> 12th Floor, Suite 1220
> Houston, TX 77002
> Houston, TX 77002
> 281.731.7018 (cell)
> dewittcs@bp.com
> - ....
>> [attachment "Sample Plan for Subsea
dispersant Test 2 .doc" deleted by
> Craig Carroll/R6/USEPA/US]
>
 Kate Clark
 Regional Resource Coordinator
NOAA Assessment and Restoration
NOAA ASSESSMENT and Re
Division
28 Tarzwell Drive
Narragansett, RI 02882
v: 401-782-3235
f: 401-782-3201
 www.darrp.noaa.= gov
 [attachment "draft Dispersed Plume
Monitoring Plan=5FPhase I.doc" deleted
by Gregory Wilson/DC/USEPA/US]
 ---- Forwarded by D= onald
 Williams/R6/USEPA/US on 05/08/2010
 09:36 AM -----
  From: Craig Carroll/R6/USEPA/US
                     Gregory
  To:
                     Wilson/DC/USEPA/US@EPA
                     Albert
                     Venosa/CI/USEPA/US@EPA,
                     Dana
                     Tulis/DC/USEPA/US@EPA,
                     Donald
                     Williams/R6/USEPA/US@EPA,
                     Harry Allen/ERT/R2/=
                     USEPA/US@EPA, James
                     Staves/R6/USEPA/US@EPA,
  Cc:
```

Jon

Rauscher/R6/USEPA/US@EPA, Karen McCormick= /R6/USEPA/US@EPA, Mark Hansen/R6/USEPA/US@EPA, Richard Mayer/R6/USEPA/US@EPA,

Terry Burton/R6=

/USÉPA/US@EPA Date:

05/03/2010 05:18 PM

Re: Monitoring Plan for Subject: Subsea Injec= tion of Surface

Oil dispersant

Thanks Greg for your responsiveness. Terry let's set up a conference call right now with Jim and Greg (and whomever else can make it) to clear this question up. From my perspective the key today is to submit today what we want BP to do regardle= ss of who's plan it is.

Craig Carroll Chief, Emergency Readiness Section

EPA Region 6 Ph: 214-665-2220 Fax: 214-665-9718

From: Gregory Wilson/DC/USEPA/US

Terry To:

Burton/R6/USEPA/US@EPA

Albert

Venosa/CI/USEPA/US@EPA,

Craig

Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Harry Allen/ERT/R= 2/USEPA/US@EPA, James Staves/R6/USEPA/US@EPA,

Cc:

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Mark Hansen/R6/USEPA/US@EPA,

Richard

Mayer/R6/USEPA/US@EPA,

Dana Tulis/DC/U= SEPA/US@EPA

Date: 05/03/2010 05:10 PM

Re: Monitoring Plan for

Subject: Subsea Injec= tion of Surface Oil dispersant

Our comments. Can you please v= erify this is the BP monitoring plan, and not the unified Area Command plan? We are hearing there is a BP monitoring plan out there.

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development

Division 1200 Pennsylvania Ave., NW (5104A)

Washington, DC 20460 tel: (202) 564-7989 fax: (202) 564-2625

From: Terry Burton/R6/USEPA/US

Albert

Venosa/CI/USEPA/US@EPA,

Craig

Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA,

Gregory Wilson/DC= /USEPA/US@EPA, Harry

To: Allen/ERT/R2/USEPA/US@EPA,

James

Staves/R6/USEPA/US@EPA,

Karen McCorm=

ick/R6/USEPA/US@EPA,

Richard

Mayer/R6/USEPA/US@EPA,

Jon

Rauscher/R6/USEPA/US@EPA

Mark

Cc: Hansen/R6/USEPA/US@EPA

Date: 05/03/2010 10:54 AM

Monitoring Plan for Subsea

Subject: Injection of Surface Oil

dispersant

New BP Monitoring Plan. Again, I will propose to Craig that we respond to this Plan, as opposed to his original request to draft a separate document. I will be in touch.

Terry Burton
Senior Environmental Scientist
Superfund and Technology Liaison
Program
U.S. Environmental Protection Agency
Burton.Terry@epa.gov
(214) 665-7139
----- Forwarded by T= erry
Burton/R6/USEPA/US on 05/03/2010
09:49 AM -----

Fw: New Deadline - 0= 900 - EPA Request for Ecosystem Monitoring Plan for Subsea Injection of Surface Oil dispersan

Craig to: John 05/03/2010 Carroll to: Martin 09:20 AM

> Paige Delgado, Richard

= Mayer, Cc: Terry Burton, Susan Webster, James Staves

## FYI

Craig Carroll
Chief, Emergency Readiness Section
EPA Region 6
Ph: 214-665-2220
Fax: 214-665-9718
----- Forwarded by C= raig
Carroll/R6/USEPA/US on 05/03/2010 09:19
AM -----

From: "Kate.Clark" < Kate.Clar=

k@noaa.gov>

To: Craig

Carroll/R6/USEPA/US@EPA
"DeWitt, Cynthia S" <de=
wittcs@bp.com>,
Steve.Lehmann@noaa.gov,
anthony.parkin@alyeska-

anthony.parkin@alyeskapipeline.com, g.coelho@ecosy= stemmanagement.net, James

Staves/R6/USEPA/US@EPA, Charlie Henry

james.e.hanzalik@uscg.mil, william.w.goetzee@uscg.mil, pasquale.roscigno@mm= s.gov, William Conner <William.Conner@noaa.gov>, Ed Levine <Ed.Levine@noa= a.gov>, Rob Ricker

a.gov>, Rob Ricker
<Rob.Ricker@noaa.gov>,
"Michele A. Finn" <Mic=
hele.A.Finn@noaa.gov>

Date: 05/03/2010 09:03 AM

Re: New Deadline - 0900 - EPA Request for Ecosystem

Subject: Monitoring Plan for Subsea Injection of Surface Oil

dispersan=

Mr. Carroll - Attached, please find the Area Command Environmental Unit's draft Dispersed Plume Monitoring Plan: Phase I. We look forward to your review and comment.

Regards, Kate Clark

```
*Sent:* Monday, May 03, 2010 12:16
 > *Sent:* Monday, May 03, 2010 12:16
AM
> *To:* DeWitt, Cynthia S
> *Cc:* Staves.James@epamail.epa.gov;
charlie.henry@noaa.gov;
> James.E.Hanzalik@uscg.mil;
William.W.Goetzee@uscg.mil; Craig
Carroll > *Subject:* Re: Sampling Plan
for Subsea Injection of Surface 0il
> dispersant: Test 2
> *Importance:* High
>
  > Cynthia,
> Cynthia,
> I would like to see the plan BP has
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Staves is in Robert, LA and will be
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> call him tomorrow morning at 214-
789-3417. Thanks
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 > Craig Carroll
> Chief, Emergency Readiness Section
> EPA Region 6
> Ph: 214-665-2220
> Fax: 214-665-9718
                                                                                           "DeWitt,
   > From:
  Cynthia S" <dewittcs@bp.com
                                                                                    Craig
        To:
 > To: Craig
Carroll/R6/USEPA/US@EPA
> Date: 05/02/2010
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 > [attachment "Sample Plan for Subsea
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>
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  [attachment "draft Dispersed Plume
Monitoring Plan=5FPhase I.doc" deleted
by Gregory Wilson/DC/USEPA/US]
```

----- Forwarded by D= onald Williams/R6/USEPA/US on 05/08/2010 09:36 AM -----

From: Gregory Wilson/DC/USEPA/US

Craig To:

Carroll/R6/USEPA/US@EPA

Venosa/CI/USEPA/US@EPA,

Tulis/DC/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA, Harry Allen/ERT/R2/=

USEPA/US@EPA, James Staves/R6/USEPA/US@EPA,

Cc: Jon

Rauscher/R6/USEPA/US@EPA,

Karen McCormick=

/R6/USEPA/US@EPA, Mark Hansen/R6/USEPA/US@EPA,

Richard

Mayer/R6/USEPA/US@EPA,

Terry Burton/R6= /USÉPA/US@EPA

Date: 05/03/2010 05:21 PM

Re: Monitoring Plan for

Subject: Subsea Injec= tion of Surface

Oil dispersant

## sounds good

Gregory Wilson, Ph.D. U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division

1200 Pennsylvania Ave., NW (5104A)

Washington, DC 20460 tel: (202) 564-7989 fax: (202) 564-2625

From: Craig Carroll/R6/USEPA/US

To:

Gregory Wilson/DC/USEPA/US@EPA

Albert

Venosa/CI/USEPA/US@EPA,

Dana

Tulis/DC/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA, Harry Allen/ERT/R2/= USEPA/US@EPA, James

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Richard

Mayer/R6/USEPA/US@EPA,

Terry Burton/R6= /USEPA/US@EPA

Date: 05/03/2010 06:18 PM

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Subject: Subsea Injec= tion of Surface

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Gregory Wilson/DC/USEPA/US From:

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Carroll/R6/USEPA/US@EPA,

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2/USEPA/US@EPA, James Staves/R6/USEPA/US@EPA,

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Dana Tulis/DC/U= SEPA/US@EPA

05/03/2010 05:10 PM Date:

Re: Monitoring Plan for

Subject: Subsea Injec= tion of Surface

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[attachment "Draft Dispersed Pl= ume Monitoring Plan.doc" deleted by Gregory Wilson/DC/USEPA/US]

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U.S. Environmental Protection Agency Office of Emergency Management (OEM) Regulation and Policy Development Division

1200 Pennsylvania Ave., NW (5104A)

Washington, DC 20460 tel: (202) 564-7989 fax: (202) 564-2625

From: Terry Burton/R6/USEPA/US

Albert

Venosa/CI/USEPA/US@EPA, Carroll/R6/USEPA/US@EPA,

Donald

Williams/R6/USEPA/US@EPA, Gregory Wilson/DC= /USEPA/US@EPA, Harry

Allen/ERT/R2/USEPA/US@EPA, To:

James

Staves/R6/USEPA/US@EPA,

Karen McCorm= ick/R6/USEPA/US@EPA,

Richard

Mayer/R6/USEPA/US@EPA,

Jon

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Cc:

Hansen/R6/USEPA/US@EPA

Date: 05/03/2010 10:54 AM

Monitoring Plan for Subsea

Subject: Injection of Surface Oil

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Fw: New Deadline -0= 900 -EPA Request for Ecosystem Monitoring Plan for Subsea Injection of Surface Oil dispersan

Craig to: John 05/03/2010 Carroll to: Martin 09:20 AM

Paige Delgado, Richard = Mayer,

Mayer,
Cc: Terry
Burton,
Susan
Webster,
James
Staves

Chief, Emergency Readiness Section EPA Region 6 Ph: 214-665-2220 Fax: 214-665-9718 ---- Forwarded by C= raig Carroll/R6/USEPA/US on 05/03/2010 09:19 "Kate.Clark" < Kate.Clar= From: k@noaa.gov> Craig To: Carroll/R6/USEPA/US@EPA "DeWitt, Cynthia S" <de= wittcs@bp.com>, Steve.Lehmann@noaa.gov, anthony.parkin@alyeskapipeline.com, g.coelho@ecosy= stemmanagement.net, James Staves/R6/USEPA/US@EPA, Charlie Henry <Charlie.Henry@noaa.gov>, Cc: james.e.hanzalik@uscg.mil, william.w.goetzee@uscg.mil, pasquale.roscigno@mm= s.gov, William Conner <William.Conner@noaa.gov>, Ed Levine < Ed.Levine@noa= a.gov>, Rob Ricker <Rob.Ricker@noaa.gov>, "Michele A. Finn" < Mic= hele.A.Finn@noaa.gov> Date: 05/03/2010 09:03 AM Re: New Deadline - 0900 -EPA Request for Ecosystem Subject: Monitoring Plan for Subsea Injection of Surface Oil dispersan=

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> *//*//
>
> *From:* Carroll.Craig@epamail.epa.gov

| mailto:Carroll.Craig@epamail.epa.gov
| *Sent:* Monday, May 03, 2010 12:16
AM
| *To:* DeWitt, Cynthia S
| *Cc:* Staves.James@epamail.epa.gov;
charlie.henry@noaa.gov;
> James.E.Hanzalik@uscg.mil;
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  /89-3417. Thanks

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> Ph: 214-665-2220

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     >
> From:
                                                                                                                                                                                                "DeWitt,
    > From:
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